



<http://www.mn-arts.org/>

January 2016 Edition

From The President

First off, I would like to thank Chuck Stroud, KA8HDE for his many years of service to our club. We have a technically oriented club of builders in no small part because of Chuck's efforts to re-charter the club and of course in serving as its President over the last 4 years. As the model for our club's leadership, I hope to follow in Chuck's footsteps to the best of my abilities.

With the next Build-A-Thon and Mid-Winter Madness right around the corner, we have a bit of planning to do. Please be thinking about how you want to spend the time at Build-A-Thon if you can attend in March. We will discuss the kits you may want to order to build at the February meeting on the 6th. We have already seen ideas coming out on the club email reflector for Mid-Winter Madness. As Jeremy and I have frequently spent time at our club table the last few years, we see a good deal of interest in the club and what we do. The last few years, Chuck has asked for some example projects we have built to be on display. I will do the same at the February meeting. Please consider showing-off your fine work at our club table this year.

In addition to these activities, we need to have more presentations scheduled out through the April/May timeframe. As I mentioned at the January meeting, Craig and I could probably fill most of the presentation slots over the course of the year, but we both want this to be a participative activity for the club. That said, we also want to bring in speakers from other clubs or the community at large. If you have topics you would like to see covered in future meetings, please let Craig or I know.

January Meeting Minutes

Russ Ramirez, K0WFS called the meeting to order at 1:00 PM. 21 were in attendance.

Introductions were made all around. Everyone gave their name, call, QTH and their other hobbies.

Paul Bushouse, N0TYE, provided the Treasurers report. There is \$2067 in the account. A \$100 donation to the ARRL Technical Fund was made.

Meeting minutes from December were approved.

Old Business:

- Suggestions for the upcoming Build-a-thon were discussed. These included: HF Front End amplifier to use with some of the recent receivers, small Yagi for satellite work, some sort of noise sniffer.

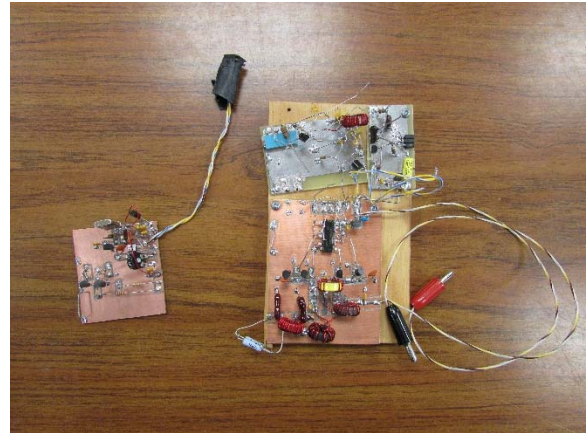
New Business:

- The need for presentation suggestions was discussed. Some topics which the group thought would be interesting were: Grounding, Digital Modes, DSP, Solar Power, Radio Control (as in models), Limited Space Antennas & Antenna Tuners.

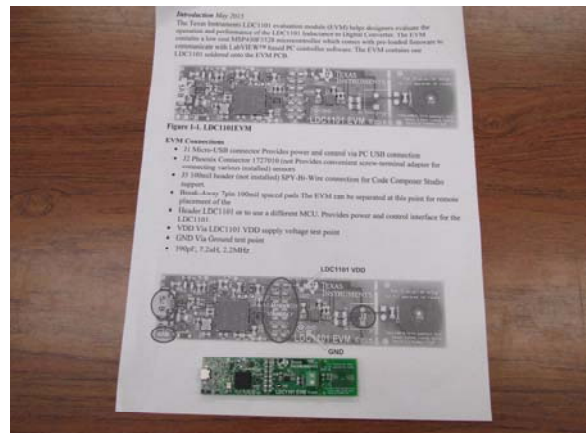
The next meeting will coincide with the Minnesota QSO party. The Minnetonka Club invited all who will be there to join them as they operate.

Show & Tell

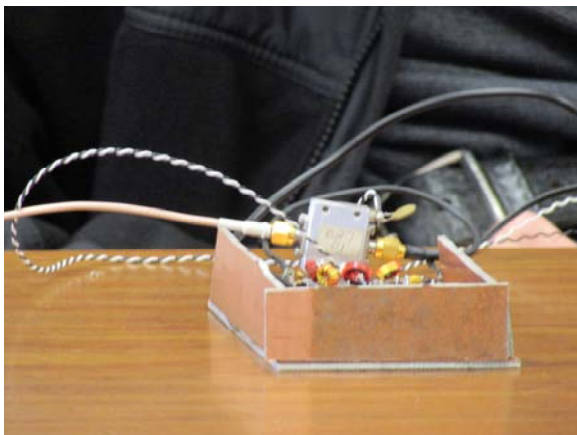
Mert Nellis, W0UFO, showed us how he has been experimenting with the modulator and power amp for the 40 Meter AM transceiver.



Les Bearl, N0PPF, showed us an inductance evaluation module from Texas Instruments and explained how it might be used. This particular module is controlled by Lab View.



John Krawczak, KJ0P, brought in the SDR Receiver he built last month at the Build-a-thon. He had installed a 30 db RF Amplifier on the front end which greatly improved its sensitivity. John also played back some audio clips he had recorded using the receiver. He is using HSDR software which he said set up nicely.



Allen Klein, W0NLY, brought in his copy of "Electronics of Radio". This uses the Norcal 40A transceiver as the basis for the text. Allen described what was in the book and concluded that while the book is a little dated it is still relevant.



Doug Marsh, N8TUT, described an NVIS antenna he plans on building. He also mentioned that he has a program that will monitor your log book and send new contacts to e-QSL.

Jeremy Mooney, KC0LDI, brought in a Digistump Oak unit. He subsequently provided some additional information for those who might want to do some further investigation. Here are his comments:

I brought one of these and a generic ESP12 to the last meeting, and was asked to send out some further info. Basically they're another clone of the ESP8266 line (specifically ESP12), but actually FCC certified, broken out to standard .1" headers, adding USB and integrated with the [particle](http://particle.io) cloud. For those unfamiliar with ESP8266, it's basically an arduino-environment-compatible microcontroller, but based on a more powerful SoC with WiFi integrated. Note that's programming environment, not physical/shields (it's 3.3v rather than 5v too).

<http://digistump.com/oak/>

When I brought them they were supposedly releasing the final firmware

within the week. Unfortunately 3 weeks later it's still not here. They have successfully launched products before so I'm inclined to just wait, but it may be worth holding off until they delivered (my understanding is there's a decent lead time on orders currently anyways, as they're delivering kickstarter hardware still).

Two things that may appeal to this group. First is the cloud integration being optional, with them releasing the server-side software so you can run your own setup. Second being the Acorn board. The Oak is basically a breakout for the Acorn plus some power and USB circuitry. That might be something that could be integrated into other projects.

They hadn't arrived by the time of the meeting so I couldn't bring one, but there's also C.H.I.P. (<http://getchip.com/>) for "\$9" which may appeal to people looking for something closer to a barebones Raspberry pi. It has integrated WiFi and bluetooth along with USB and GPIO, but only composite video without add-on boards. So not great for the HTPC Pi group, but interesting for the general monitoring/control crowd.

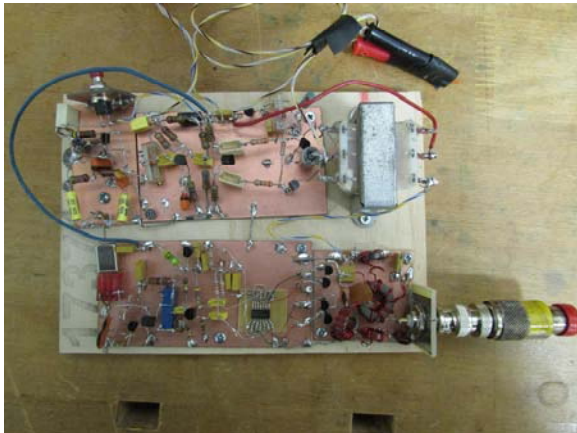
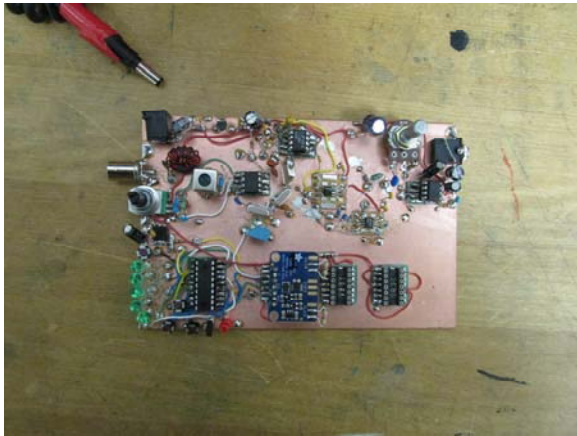
Also more recently (I haven't really looked at it yet) but along the lines of C.H.I.P. is the [Orange Pi One](#). This looks more like a raspberry pi for ~\$14. Their prior lines were basically designed to be direct competitors, but there are technical differences and apparently a much smaller community.

Steve Ulrich, NW0C, brought in a TNC daughter board he recently completed for a Raspberry Pi.



Craig Johnson, AA0ZZ, gave us an update and demonstration of the transmit and receive circuits on his 40 Meter AM transceiver. Craig explained how the receiver was controlled and that it currently had five selectable channels.

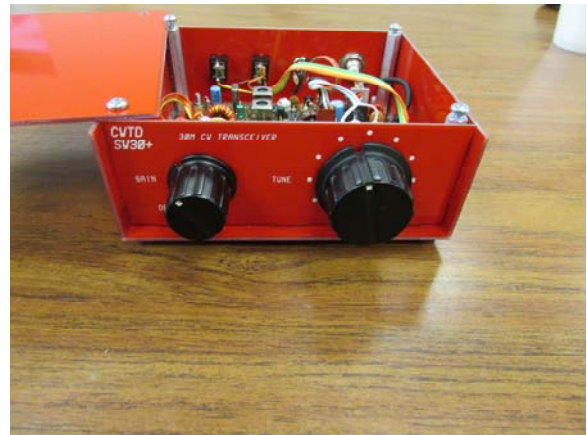


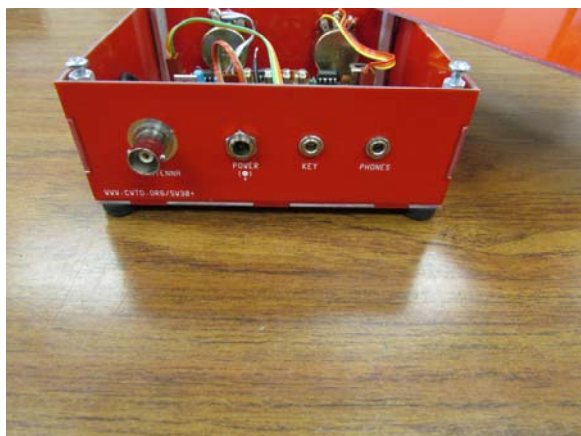


January Presentation

Craig Johnson, AA0ZZ, spoke on Chat With The Designers. They will be doing a series of webinars around the Small Wonders Lab SW30+ transceiver. Craig encouraged all to participate in this and to watch the website, cwtd.org, for kit availability.

Craig also discussed the difference between a direct conversion receiver and a superhet receiver.





Respectfully submitted,
Steve, NW0C

Club Officers:

President: Russ Ramirez/K0WFS
Vice Pres: Jeremy Mooney/KC0LDI
Secretary: Steve Ulrich/NW0C
Treasurer: Paul Bushouse/N0TYE
At Large: Craig Johnson/AA0ZZ

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